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| 10/510,985 | 10/13/2004 | Akihiko Yanaga | 2004 1613A | 2208 |

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| EXAMINER |
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FLORY, CHRISTOPHER A

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| ART UNIT | PAPER NUMBER |
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3762

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/510,985

Applicant(s)

YANAGA, AKIHIKO

Examiner

Christopher A. Flory

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/13/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it is greater than 150 words in length. Correction is required. See MPEP § 608.01(b).
5. The disclosure is objected to because of the following informalities: there are typographical errors on page 5, lines 13-20. On line 14, Applicant has both "attachment 40" and "magnets 40." On line 15, Applicant has "attachment 41." As these three references clearly point to a single concept, it is suggested that Applicant chose one and only one number, and one and only one name to designate this concept, such as --attachment 40— or --magnets 40--, but not both. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "non-paste electrodes" in claims 4-6 is a relative term which renders the claims indefinite. The term "non-paste electrode" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. From the specification and claim language, it is unclear whether Applicant intends for the electrodes to be configured so as not to adhere to the skin (i.e. non-adhesive), or alternatively that the electrodes be composed of a solid (i.e. non-gelatinous) material, such as carbon-fiber resin, as suggested in page 3, lines 15-18 of the specification.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Granzotto et al. (US Patent 6,757,392).

Regarding claim 1, Granzotto et al. discloses an electrocardiograph (column 1, lines 60-67) comprising a body case (Fig. 1, headpiece 1) which is held on a chest

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portion of a subject (ABSTRACT; column 3, lines 8-22); a common electrode provided on a back surface of said body case (Fig. 4, fixed electrode 16); a pair of arm portions which extend from said body case (Fig. 4, arms 18); electrodes for detecting electrocardiographic complex which are provided in both end portions of said pair of said arm portions respectively (Fig. 4, electrodes 17; column 2, lines 1-7); a detecting means for detecting electrocardiographic complex based on signals detected by said electrodes (column 4, lines 51-59); a display means for displaying said electrocardiographic means (Fig. 3, LCD 11 displays the electrocardiographic complex and heart rate); a transmitting means for transmitting said electrocardiographic complex (LCD 11 can be considered a transmitting means; likewise, circuitry or wiring between the disclosed memory and display constitutes a transmitting means); a switching means for starting detection, display, and transmission of said electrocardiographic complex (Fig. 3, operating keys 13).

Regarding claim 2, Granzotto et al. discloses a switching means constituted of a pair of push-down switches provided on a front surface of said body case (Figs. 2 and 3, operating keys 13; column 3, lines 24-36). It is noted that the clause "both of said push-down switches are pushed down at once for a specific period" does not distinguish over the prior art because, regardless of the intended button configuration of the Granzotto et al. reference, pressing multiple buttons at once will still activate the unit so long as one is configured to power on the unit. "For a specific period" can comprise any length of time, from a nearly instantaneous button press to holding down one or multiple buttons

for any number of seconds, minutes, etc. Therefore, this claim does not distinguish over the Granzotto et al. invention.

Regarding claim 3, Granzotto et al. discloses a switching means constituted of push-down switches which are provided in said electrodes respectively (column 4, lines 1-47).

Regarding claims 7-9, Granzotto et al. shows said body case suspended from a neck of said subject by a suspending means (Fig. 1, flexible bows 31; column 2, lines 3-39).

Claim Rejections - 35 USC § 103

11. Claims 4-6, 10 and 11 are rejected under 35 U.S.C. 102(b) as anticipated by Granzotto et al. or, in the alternative, under 35 U.S.C. 103(a) as obvious over Granzotto et al. in view of Reinhold, Jr. (US Patent 5,339,823, hereinafter referred to as Reinhold'823).

Regarding claims 4-6, it is evident from the scope of the disclosure in Granzotto et al. that non-paste electrodes are inherently necessary for proper function of the Granzotto et al. device. It is well known that stethoscopes operate by being placed temporarily on the chest of a subject and are held there by human force rather than adhesive means. Granzotto et al. further discloses that electrodes 17 are moveable (column 4, lines 1-27) and applied through pressure (column 4, lines 45-47) rather than adhesive means.

Alternatively in the same field of endeavor, Reinhold'823 teaches the use of non-adhesive precordial electrodes on an electrocardiograph device in which human pressure is applied to engage the array of six precordial electrodes with the skin of the chest of the individual in an operative relation (ABSTRACT; column 4, lines 54-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Granzotto et al. with the non-adhesive electrodes of Reinhold'823 to provide the Granzotto et al. system with the advantage of temporarily applying the device to a patient in an operative relation with human pressure contact (motivation to combine provided by Reinhold'823 ABSTRACT; column 4, lines 54-66).

Regarding claim 10, Granzotto et al. shows said body case suspended from a neck of said subject by a suspending means (Fig. 1, flexible bows 31; column 2, lines 3-39).

Regarding claim 11, the suspending means of Granzotto et al. is considered to be detachable because the bows 31 are made of a rigidly flexible material known in the art which hold the device on the neck of a user while in their resting configuration, but can be manually separated to allow removal of the device from the neck. The suspending means of Granzotto et al. is detachable to said body case because the bows 31 could be physically removed from the chest-piece 2 without altering in any way the function of the electrocardiograph subsystem.

Alternatively in the same field of endeavor, Reinhold'823 teaches an electrocardiograph device employing a lanyard for engagement around the neck of the user (column 5, lines 1-20). It is well known that a lanyard, such as one used on a set

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of keys or on a personal camera, comprises a separate flexible loop body (typically fabric) that is attached in a releasable manner to the main body of a device, either by tying through a hole in the device body, attaching to the device body by a key ring, or releasably inserting a male connector portion into a compatible female connector portion. This establishes a detachable quality to the lanyard taught by Reinhold'823. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Granzotto et al. with the detachable lanyard as taught by Reinhold'823 to provide the Granzotto et al. system with the same advantage of releasably engaging the device around a user's neck and allowing for proper vertical adjustment of the electrodes to record an electrocardiographic complex (motivation to combine provided by Reinhold'823, column 5, lines 1-20).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory

2 August 2006



George Manuel
Primary Examiner